ST/ESA/SER.R/11

NATIONAL EXPERIENCE IN THE FORMULATION AND IMPLEMENTATION OF POPULATION POLICY, 1959-1976

CUBA

UNITED NATIONS

ST/ESA/SER.R/17

Department of Economic and Social Affairs

NATIONAL EXPERIENCE IN THE FORMULATION AND IMPLEMENTATION OF POPULATION POLICY, 1959-1976

CUBA

UNITED NATIONS
New York, 1977

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

ST/ESA/SER.R/17

PREFACE

Since the World Population Conference held under the auspices of the United Nations in 1974 there has been growing interest among policy makers in the complex interrelationships between population and development, with the area of population policy being one of increasing concern.

The following study is one of a series of reports prepared during 1975 and 1976 by the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, in an attempt to disseminate information among interested Governments and scholars on the experience of various Governments in formulating and implementing population policies. It is intended that the series, when completed, will include all countries in the world and will examine the variety of situations and solutions adopted by Governments, which have often been determined by particular historical, political, socio-economic or cultural circumstances. The information included in the series would be useful to the national bodies assisting Governments in the area of population and related fields, as well as to the international organizations which are attempting to increase the knowledge of ways in which Governments may most effectively resolve problems associated with population.

Although the reports have been prepared with all possible care, there may possibly be errors or omissions. Comments or corrections from Governments would be appreciated.

CONTENTS

	Page
PREFACE	iii
INTRODUCTORY NOTE	1
I. THE PERIOD 1959-1970	4
II. THE PERIOD 1970-1976	19
CONCLUSION	34
Table. Selected demographic indicators, 1950-2000	36
Map. Cuba: administrative divisions	39

INTRODUCTORY NOTE

The period of economic expansion in Cuba based on the export of sugar came to an end in the first half of the 1920s as a result of the stabilization of sugar supplies dislocated by the First World War and of a rapid and severe decline in sugar prices. Since an industrial sector was virtually non-existent and the economy lacked defence mechanisms, the 1929 economic crisis assumed the proportions of a catastrope. Recovery was sought in closer integration with the economy of the United States of America. Under the terms of the Costigan-Jones Law of 1932, Cuba was assigned a basic quota of 28 per cent of the United States market. The guidelines adopted in the early 1930s led to an impasse in the economic sphere. The export sector, on which all other economic activities were dependent, made no progress between the 1920s and the 1950s, while the country's population doubled. The economy tended to adapt itself to conditions of permanent underemployment of the country's labour force.

The Economic Commission for Latin America reported in 1951 that "the absence of organizations for the fostering of economic development has up to the present time been a serious obstacle to government intervention in problems of national concern. The limitation of the means available to the authorities is evidenced by the fact that until the post-war years, Cuba had no official institution in charge of determining monetary policy." 1/

From August to October 1950 a mission of the International Bank for Reconstruction and Development (IBRD) visited the country at the invitation of the Government to make an independent study of the economy. The mission reported in 1951 that a major obstacle to effective development planning was the lack of economic and social statistics. "It is impossible to...frame sound policies without the necessary facts. Since these are often lacking in Cuba many decisions have been made on the basis of opinion only. There have not been enough facts to counteract the pressure of groups concerned only to gain some sectional advantage or to solve some temporary problem. In consequence, the long-term effects on the nation as a whole have often been disregarded." 2/

1/ "Economic survey of Latin America, 1950; recent trends and events in the economy of Cuba" (E/CN.12/214/Add.5), pp. 8-9.

2/ Report on Cuba: Findings and Recommendations of an Economic and Technical Mission Organized by the International Bank for Reconstruction and Development in Collaboration with the Government of Cuba in 1950 (Washington, D.C., International Bank for Reconstruction and Development, 1951), pp. 23-24.

The mission also reported that Cuba's population was growing, not at an alarming rate, but rapidly enough so that each decade brought an appreciable increase in the number of consumers and in the labour force. The actual rate of increase between the past two censuses (1931-1943) had been 1.6 per annum. The rate of growth in 1951 was unknown. Current trends could not be assessed from birth rates and death rates because such data were not collected in Cuba with sufficient completeness or reliability. The census of 1953 enumerated a total population of 5.8 million, an increase of 1 million inhabitants during the intercensal period 1943-1953. The Census Office reported that the average annual growth rate had increased to 2.3 per cent during those years, but that it had not been determined whether that rate represented a true increase or merely a short-term fluctuation due to the occurrence of postponed births.

The United Nations Population Bulletin reported in 1956 that "the mortality experience of Cuba...cannot be assessed in detail because of paucity of data and incompleteness of registration...Published rates for Cuba indicate a decline in death rates within recent years, but rates for the present [about 7-8 per thousand] are too low to be taken as a true picture of the country's mortality."3/ The IBRD mission reported that "there is no doubt that Cuba suffers from two serious health problems--parasites and malnutrition. It is authoritatively estimated that between 80 and 90 per cent of the children in rural areas are infested by intestinal parasites and that most of them suffer from three varieties." 4/ With regard to environmental sanitation, the mission reported that "even in the towns, water supplies are too often inadequate, uncertain... and more likely than not--unsanitary...Throughout Cuba, the public works policies of the past seem to have been mainly concerned with providing public buildings...at the expense of reservoirs and aqueducts, which, of course, are much more essential to the health and prosperity of the nation." 5/ The Agrupación Católica Universitaria reported in 1957 that a majority of rural families received no medical attention, since public health facilities were virtually non-existent in rural areas. 6/

The most salient characteristic of the country's spatial distribution before 1959 was the existence of a metropolitan centre which absorbed 26 per cent of the absolute growth of the total population.

3/ G.W. Roberts, "Recent demographic trends in Cuba, Haiti and the British Caribbean," Population Bulletin, No. 5 (United Nations publication, Sales No. 56.XIII.4), pp. 45-46.

4/ Report on Cuba..., p. 441.

5/ Ibid., p. 464.

6/ "Encuesta de trabajadores rurales 1956-57 realizada por la Agrupación Católica Universitaria," Economía y Desarrollo, No. 12 (julio-agosto de 1972), p. 202.

Havana, with a total population of 1.36 million was seven times larger than Santiago de Cuba, the second largest city, accounted for 52 per cent of the national industrial production by volume (75 per cent, excluding sugar) and handled 90 per cent of the nation's port activity.

The following study has been divided into two periods: 1959-1970 and 1970-1976. There was little justification for subdividing the period 1959-1976, since there has been essential continuity in government policies. However, the year 1970 was chosen as a dividing point because, as the Government itself has noted, it marks the initiation of a number of important changes in the planning process.

I. THE PERIOD 1959-1970

The political and economic situation

Following a two-year campaign of guerrilla warfare in the Sierra Maestra, Fidel Castro led the overthrow of the Batista régime on 1 January 1959. In the first three years of the revolutionary era, Cuba's economy, society and polity underwent a profound and rapid transformation. The economy, which had been characterized by private ownership of the means of production, was reorganized along the lines of a primarily publicly owned command economy similar to those of most socialist countries during the 1950s.

Cuba's first economic strategy, which was formulated in 1960-1961, was designed to achieve rapid growth and structural transformation in order to escape the problems inherent in an economy characterized by sugar monoculture. The main features of the strategy were accelerated industrialization by means of import substitution, agricultural diversification with reduction of emphasis on sugar and reliance upon the economic assistance of the socialist countries. A reappraisal of the strategy was undertaken in 1963 when it became apparent that the country's economic performance had not improved sufficiently and that the growth strategy was causing a balance-of-payments crisis. The second economic strategy envisaged the sugar agro-industrial complex as the essential generator of growth in the Cuban economy, earning large volumes of foreign exchange through sales to the USSR, Eastern Europe and the world free market and as a leading sector that would provide linkage effects to other economic activities (producing inputs for or processing outputs of the sugar sector). Other lines of agriculture were to play similar roles as leading sectors and as foreign-exchange earners. Industrial development was to be geared to the needs of agriculture in contrast to the diversified industrial expansion attempted under the first strategy. 1/

Development planning

The Central Planning Board (JUCEPLAN) was established in early 1960 but did not become fully operational until 1961 when--with the assistance of Czechoslovak experts--the Government made preparations for its first development plan. The following year--1962--was proclaimed "Planning Year" (Año de la Planificacion). The Government's initial experience with

---

1/ Archibald R.M. Ritter, The Economic Development of Revolutionary Cuba (New York, Praeger Publishers, 1974), pp. 128-129.

economic planning was acquired from the bottom up, with the formulation of pre-plans at the ground level which set forth the anticipated annual activity for each state enterprise. These pre-plans were then relayed to JUCEPLAN and to a number of other agencies, and top-level planning was basically confined to co-ordinating and integrating the various projects. From this initial experience derived the concept of integral planning from the top down and from the bottom up. Central planning gradually ceased to be merely a mechanism for reconciling one sectoral plan with another and became the actual centre of the whole process of plan formulation, defining the limits and the scope of the plan from first to last.

The Government has formulated annual plans since 1962. The first ones were not based on precise development objectives, due to the fact that the Revolutionary Government was consolidating its position and moving towards control of the basic means of production. With the establishment of a national statistical system, the Government found it possible to formulate a medium-term development strategy at the end of 1963. Subsequent medium-term strategies were formulated for the periods 1966-1970 and 1970-1975. In 1969 a new planning body (Grupo de Plan Perspectivo) was created to initiate the co-ordination of plans with the Soviet Union.

Information on the general demographic situation and trends

Systematic data collection rapidly improved after 1959. The National Statistics Bureau (Dirección General de Estadística) was absorbed by the Central Planning Board (JUCEPLAN) in 1959, as was the Office of the Census (Oficina Nacional del Censo) in 1961. In 1965 the Government published a demographic yearbook (Anuario Demográfico) for the year 1961, the first such publication to be issued since 1915. 2/

Vital rates were calculated on the basis of registration statistics until 1964. Beginning in 1965 data on fertility and international migration were extracted from the National Registry of Consumers. The Government reported in 1965 that the Registry, although not a census of population, had provided an objective base with which to determine actual population size and to estimate figures for previous years which were far more precise than those derived by any other means of estimation. 3/

2/ Anuario Demográfico de Cuba: Año 1961 (La Habana, JUCEPLAN, Dirección General de Estadística, 1965).

3/ Resumen de Estadísticas de Población, No. 1 (La Habana, JUCEPLAN, Dirección Central de Estadística, 1965), p. (ii).

General policy with regard to the demographic situation and trends

While formulating numerous measures affecting mortality and associated morbidity and controlling emigration and internal distribution, the Government did not choose to adopt a policy which would consider a particular rate of population growth to be desirable or a long-term integrated policy in relation to fertility trends. However, the Government did promote a development strategy which was planned and administered for the purpose of increasingly satisfying the population's economic, social and cultural needs and which had an observable effect on demographic structures and trends.

Size and growth of the population

Information available to the Government

The first summary of population statistics entitled Resumen de Estadísticas de Población, issued in 1965, reported that the estimates of total population size by province which had been reported in the Anuario Demográfico (published in May 1965) had been adjusted two months later on the basis of data obtained from the National Registry of Consumers. According to the revised estimates, the country had a total population of 7.6 million and an average annual growth rate of 2.6 per cent. The fourth Resumen, published in 1970, reported the following estimates of total population size and of average annual rates of population growth for the period 1960-1968:

Year	Total population	Growth rate
1960	6.8	2.0
1961	6.9	1.7
1962	7.0	1.9
1963	7.2	2.4
1964	7.4	2.7
1965	7.6	2.5
1966	7.8	1.9
1967	7.9	1.8
1968	8.0	1.7

Government perception of size and growth in relation to development objectives

The Government perception of the acceptability of population growth was influenced in part by official projections which assumed that population growth rates would remain moderate. Using base figures for the year 1965 obtained from the National Registry of Consumers, the Central

Statistical Bureau issued a monograph on population projections in 1966 which estimated a total population of 8.3 million in 1970 and an average annual growth rate of 1.7 per cent (medium variant), of 8.2 million, with an average annual growth rate of 1.4 per cent (low variant), and of 8.4 million, with an average annual growth rate of 2.0 per cent (high variant). 4/ In formulating its assumptions with regard to future trends, the Central Statistical Bureau noted that mortality was likely to remain constant and fertility would gradually decline, whereas future international migration trends were subject to great uncertainty.

Aside from the fact that its projections assumed moderate rates of population growth, the Government perception of the acceptability of population growth in relation to development objectives must be considered within a broader context. The revolutionary leadership perceived four major socio-economic problems which had confronted Cuba in the 1950s: excessively slow growth of gross output (and falling income per capita), continuing maldistribution of income and wealth, very high levels of unemployment and continuing dependence upon sugar as the main foreign exchange earner and upon the United States as the main foreign investor, export market and import source. One of the earliest official statements of the Revolutionary Government--the "Economic Thesis of the 26th of July Movement"--rejected what it labelled "Creole Malthusianism" as a strong current of economic thinking contrary to the national progress. The manifesto argued that the structure of the economy could be changed; that substantial volumes of Cuban capital to finance development did exist and that foreign capital was undesirable in the form of private equity ownership. It stated that the goals of the revolutionary movement were sustained and rapid economic growth, the achievement of equitable distribution of wealth and income and the elimination of unemployment and underemployment. 5/ Subsequent government policies have been largely conceived in terms of these broad objectives. The Government has maintained that profound structural transformations, removing the obstacles to sustained economic growth, obviate the need to restrict (or to stimulate) population growth, since fertility and mortality would reach desired levels as a consequence of the development process.

In discussing the Government perception of the acceptability of population growth in relation to development objectives, it is important to note that the country's endemic unemployment and underemployment were replaced within the first year of revolutionary rule by a scarcity of labour. 6/ Thus, one of the principal factors underlying the perception

---

4/ Población Estimada por Provincias, Partes Urbana y Rural, Sexo y Grupos de Edad: 1965 (La Habana, JUCEPLAN, Dirección Central de Estadística, 1966), p. 1.

5/ Revista del Ministerio de Comercio, No. 1 (enero-marzo de 1959), pp. 7, 13-14.

6/ Michel Gutelman, L'Agriculture socialisée à Cuba: enseignements et perspectives (Paris, F. Maspero, 1967), pp. 219-220.

of some Governments that population growth is excessive was removed in the Cuban case.

Policy with regard to size and growth

Although the Government's policy with respect to population growth was one of non-intervention, a number of basic structural reforms were implemented during the early revolutionary period which succeeded in naturally resolving problems of disequilibrium between population growth and other societal processes. The Revolution's first major act in the economic sphere was the promulgation of an Agrarian Reform Law, which involved the abolition of rural rents and the introduction of state control over all medium and large estates. In addition to the agrarian reform, several other measures were designed to change the pattern of income distribution. Urban rents were lowered by between 30 and 50 per cent, higher wages were paid to urban and rural workers and government expenditure on social services was raised from $390 million to $1,321 million. It has been estimated that the net effect of the various measures adopted between 1959 and 1961 was to transfer at least 15 per cent of the national income from property-owning groups to the working masses. The initial orientation of the Revolution may be accounted for by the fact that its leaders had been influenced by studies of the country's economy before the Revolution, which had emphasized the existence of considerable unused productive capacity attributable to the lack of effective demand and the extremely inequitable distribution of income. It was felt that a policy directed towards remedying this situation would bring about a rapid growth of the domestic product. 1/ New policy directives formulated after 1963 were aimed at the recovery of the capacity to import through the more systematic exploitation of the country's comparative advantages in sugar production and other agricultural and livestock products.

A number of policies formulated by the Government during the immediate post-revolutionary period had the effect of bringing about a displacement towards the cities of a considerable number of agricultural workers. There was a disappearance of seasonal unemployment in rural areas (which had facilitated a manpower surplus during harvest periods) and of hidden unemployment, as a result of the Agrarian Reform and of the rapid increase in rural construction. So, too, thousands of youth moved to the cities to be educated as recipients of scholarships from the Revolutionary Government. Thus, the unintended result of a number

---

1/ Celso Furtado, Economic Development of Latin America (London, Cambridge University Press, 1970), pp. 240-241.

of government policies implemented during the 1960s was a temporary regional disequilibrium between the supply and demand for manpower. The resultant shortage in certain areas was a contributory factor in the Government's adoption of a policy of non-intervention with respect to population growth.

Morbidity and mortality

Information available to the Government

In the first Anuario Demográfico, the Statistical Bureau reported that beginning in 1960 the Ministry of Public Health forwarded data on medically certified deaths to the Statistical Bureau as a means of supplementing data derived from the Civil Registry. The Resumen de Estadísticas de Población issued in the same year reported that there were omissions in the Civil Registry, particularly in the rural areas, and that records of medically certified deaths compiled by the Ministry of Public Health were also incomplete. In 1970 the fourth Resumen published the following estimates of general and of infant mortality for the period 1953-1968:

Year	Crude death rate	Infant mortality rate
1953	6.4	34.8
1958	6.5	33.0
1962	7.3	39.8
1963	6.8	38.6
1964	6.4	38.1
1965	6.6	38.4
1966	6.5	38.5
1967	6.4	40.5
1968	6.7	41.3

The report stated that general mortality rates had remained almost constant during the past several years. The small increase observed in 1968 was probably due to improvement in vital registration, principally of deaths under one year of age. Infant mortality rates had shown a tendency to increase, owing to a substantial improvement in vital

registration, which obscured the achievement of a real decline in infant mortality. 8/

Government perception of levels of morbidity and mortality

The Central Statistical Bureau reported in 1966 that infant as well as general mortality remained at the low level which had been characteristic of the health status of the Cuban people, even taking into account underregistration.

In preparing its first series of population projections in 1966, the Statistical Bureau reported that the prediction of mortality trends presented fewer difficulties than that of fertility or of international migration, although the relevant statistics had deficiencies of an unknown magnitude. An important reduction could not be expected. While improvements in health would be reflected in the statistics, one had to take into account that the population was aging, as a result of which a rate of 6.9 per thousand for the quinquennium 1966-1970 had cautiously been maintained. 9/ The Statistical Bureau reported that the level of mortality chosen for its projections corresponded to a life expectancy at birth for both sexes of 69.2 years.

8/ The Government issued the following revised rates in 1976:

Year	Crude death rate	Infant mortality rate
1953	6.3	35.7
1958	6.4	32.5
1959	6.5	34.6
1960	6.2	36.5
1961	6.5	39.3
1962	7.2	43.4
1963	6.8	37.8
1964	6.4	36.7
1965	6.5	37.1
1966	6.4	37.2
1967	6.3	36.8
1968	6.6	39.0
1969	6.7	47.4
1970	6.2	35.9

Source: La Población de Cuba (La Habana, Centro de Estudios Demográficos, 1976).

9/ Población Estimada por Provincias..., p. v.

In view of the Government's determined policy of developing the health infrastructure in rural areas and of the fact that it published annual series of data on general and infant mortality by province, it may be inferred that it considered the persistence of regional mortality differentials to be unacceptable.

Policy with regard to morbidity and mortality

Beginning in 1960 an intensive effort was made to eradicate infectious diseases and to raise the level of environmental sanitation. Two hundred and ninety-five thousand persons were examined for parasites in 1960, compared to 10,000 in 1958. The sum of $270,000 was allocated for antiparasitic medicines in 1960, compared to $8,000 in 1958. Four hundred and ninety-five thousand persons were x-rayed for tuberculosis in 1960, whereas only 9,700 had been x-rayed in the 18 months prior to the Revolution. The Government allocated $939,000 for the eradication of malaria and employed 300 technicians to spray infected areas. Whereas 40 medical technicians had been enrolled in courses in 1958, 785 were enrolled by 1961. 10/ By the year 1964, 94.6 per cent of the population was immunized against polio. 11/

The United Nations Children's Fund (UNICEF) reported in 1966 that the Government was developing a nutrition education programme through the Ministries of Health, Education and Agriculture. 12/

The reorganization of the Ministry of Public Health in 1960 (into the Departments of Hygiene, Epidemiology, Medical Assistance and Planning) marked the beginning of the transformation of Cuba's health services delivery. Revenues of the Ministry increased 330 per cent by 1961, whereas the number of physicians increased from 1,121 in 1958 to 4,949 in 1961, as a result of the Government's efforts to compensate for the emigration of an estimated 3,000 physicians following the Revolution. Whereas the country had had 57 hospitals in 1958, it had more than 200 in 1962, as well as an additional 260 polyclinics. 13/

The Government's initial health policies emphasized the regional equalization of services and gave priority to rural areas lacking services before the Revolution. A Rural Medical Service (Servicio Médico Social Rural) was created in January 1960, which by 1969 had built 48 rural

---

10/ Desarrollo Económico y Salud en Cuba Revolucionaria (La Habana, Ministerio de Salud Pública, 1961), pp. 116, 118, 122, 138.

11/ Compendio Estadístico de Cuba (La Habana, JUCEPLAN, Dirección Central de Estadística, 1965), p. 15.

12/ "Recommendation of the Executive Director for an allocation; Cuba: applied nutrition" (E/ICEF/P/L.787), para. 1.

13/ "Informe de la Delegación de Cuba al XIII periodo de sesiones de la CEPAL, Lima, Perú, 1969," Economía y Desarrollo, No. 1 (enero-marzo de 1970), p. 71.

hospitals with a total of 1,350 beds. The Medical Service relied on the assistance of recent medical school graduates, who were required to devote a year to the practice of medicine in rural Cuba. A further measure aimed at the reorganization and rationalization of health services according to an integrated regional model was the establishment of rural polyclinics--medical facilities built in conjunction with schools in remote rural areas, as a means of creating small population nuclei and of increasing the efficient use of medical resources. An additional innovative structure in the health sector was the people's health committee, which performed such functions as mobilizing the rural populace in vaccination, health education and sanitation programmes. 14/

Fertility

Information available to the Government

The Government made steady progress between 1959 and 1970 in improving statistics on fertility levels and trends. The Central Statistical Bureau reported in 1965 that as far back as the colonial period births had been recorded with great delay due to a law granting one year of grace, as a result of which only a portion of births were recorded during the year of their occurrence. In its first Resumen the Bureau reported that it had not included data on fertility levels and trends since, for a typical year such as 1960 or 1961, less than 19 per cent of the births had been registered during the year of their occurrence. In the Resumen published in 1966, the Statistical Bureau published information on births occurring in 1965 (age-specific rates by province). It reported that the data obtained from the National Registry of Consumers confirmed the estimates which had been previously calculated. In 1965 there was a gradual reduction in fertility--which had reached a maximum level in 1962--a decline which continued in the first semester of 1966 according to all available information. The high rates for the provinces of Oriente and Pinar del Río--40 per thousand in 1965, having reached 42 per thousand in 1962--were exceptional.

In 1965 an important measure was adopted with respect to birth registration: the joint resolution of the Ministries of Justice and Public Health of August 1965 for the inscription of births in clinics and hospitals. In a further attempt to reduce underregistration, two series of birth rates were calculated after 1967: one for the cohort of live births occurring during the calendar year and one for births recorded during a given calendar year, independent of the year of their occurrence.

14/ Gerardo González-Cortés, Developmental Measures Leading to a Decline in Fertility in Underdeveloped Countries of Latin America: the Cases of Brazil, Chile and Cuba (Santiago de Chile, Centro Latinoamericano de Demográfia, 1974), p. 36.

A monograph prepared by the Statistical Bureau in 1966 reported that as a result of the circumstances and transformations brought about by the Revolution of 1 January 1959, fertility had shown an observable increase. The indirect estimation for 1962 was 36.9 per thousand, with the rate falling slightly in the following years, a tendency which was confirmed by information provided by the records of the National Registry of Consumers in 1965, a year in which the rate was 34.6 per thousand. The Statistical Bureau stated that the high rate recorded in 1962 could only be explained by the unique conditions then prevailing in Cuba, since it went against all accepted demographic theories with respect to the relationship between levels of fertility and the level of national socio-economic development.

In 1970 the Statistical Bureau reported in the fourth Resumen that according to the records of the National Registry of Consumers the crude birth rate was 29.2 thousand in 1967, whereas the rate of 28.9 in 1968 was equivalent to that of 1953, accentuating the tendency of the rate to decline and to reach the level of fertility before the Revolution, or 27.3 per thousand in 1954. The Statistical Bureau noted, however, that these figures were only approximate birth rates, since the data from the Registry of Consumers referred only to surviving births.

Government perception of levels and trends of fertility

In its population monograph issued in 1966 the Statistical Bureau noted that in view of observed fluctuations in fertility levels during the early 1960s, the prediction of future trends was probabilistic. It reported that its basic assumption would be that of a slow decline in the next few years which would later occur on a wider scale, a phenomenon which occurred in the developing countries with an improvement in

socio-economic conditions and occurred to a further extent in the developed countries as a result of rising levels of educational attainment and incorporation of women into the labour force. It went on to report that according to data obtained from the National Registry of Consumers, the gross reproduction rate was 2.4 in 1965, corresponding to a net reproduction rate of 2.2, a level which had not yet been observed in most developing countries which were characterized by their high fertility. The levels of fertility chosen for these projections--a crude birth rate of 30 per thousand in 1970 in the medium variant and of 28 per thousand in the low variant--might possibly be too high. The Bureau discussed the need for caution in making projections, noting that new situations might present themselves which would substantially modify the factors which influenced demographic processes, especially at that historical moment when social and individual mores were being radically transformed by means of family planning, which tended to reduce fertility and would make itself felt in Cuba to a greater or less extent.

Policy with regard to fertility

While isolated from much of the latest research on contraceptive methods, Cuba received intra-uterine devices via Canada through a 1966 agreement with the International Planned Parenthood Federation (IPPF). The IPPF had no regular communication with Cuba after 1967. Contraception continued to be provided in public health facilities on request, with contraceptive supplies being purchased from countries in Eastern Europe or as recommended by doctors following abortion. Information on birth control was included in health information broadcasts on radio and television, but no great emphasis was placed on the subject, since contraception was regarded as a routine part of health services delivery.

Although it permitted the dissemination of means to regulate individual fertility, the Government did not adopt a policy designed to modify aggregate fertility levels.

Immigration

There was a sizable immigration of anti-Batista Cubans and of non-Cubans sympathetic to the new Government following the Revolution. According to the data compiled by JUCEPLAN, the country gained 12,345 persons in 1959. Immigration accelerated in 1960, but in the same year emigration sharply increased so that in net terms the country lost some 62,369 persons. 15/ Immigration was no longer statistically significant after 1960. No statement of government perception or policy is known.

15/ Anuario Estadístico de Cuba (La Habana, JUCEPLAN, Dirección Central de Estadística, 1972), pp. 18-24.

Emigration

Information available to the Government

The Central Statistical Bureau reported in 1966 that until 1958 net international migration was insignificant. Beginning in 1960 there was an appreciable negative exterior flow which continued at a volume of 60,000-70,000 persons per annum until the end of 1962 when, as a result of the October Crisis, regular lines of communication were broken with the United States of America. From 1963 onwards this flow was reduced to slightly over 12,000 persons per annum until October 1965, when emigration resumed on a larger scale. Beginning in 1965 the Central Statistical Bureau published annual series of data on net international migration, utilizing data obtained from the National Registry of Consumers. The slightly adjusted figures subsequently released by JUCEPLAN reveal that a total of 506,000 persons emigrated during the years 1960-1970. 16/

Government perception of levels and trends of emigration

In issuing its first series of population projections in 1966 the Central Statistical Bureau noted that the prediction of future emigration trends was subject to great uncertainty. Noting that projections for the period 1966-1970 were based on monthly departures since October 1965, the Bureau reported that neither high, low, nor medium variant projections would necessarily conform to the true rates which might come about as a result of unforeseen changes in the situation, but as it was necessary to formulate some hypothesis the most logical would seem to be based on the current rate.

In spite of the Government perception of the existence of a manpower shortage in rural areas during this period, it continued to allow emigration of those persons unable to adapt to the new economic and social system.

Policy with regard to emigration

Annual variations in net international migration may be explained as a function of varying government policies. During the period of commercial flights between January 1959 and October 1962 there was an outmigration of professionals, landowners and persons associated with the Batista régime. The flow slackened by about 20 per cent during the period from October 1962 to December 1965 when commercial flights were

---

16/ Ibid.

suspended. 17/ Large-scale emigration resumed during the period of the Cuban airlift which commenced in December 1965, with more than 50,000 persons emigrating per annum during the period 1966-1971.

Spatial distribution

Information available to the Government

In the second Resumen the Central Statistical Bureau stated that 1965 was the first year in which it had a solid statistical base with which to study internal migration, due to the utilization of records of the National Registry of Consumers. In the fourth Resumen (1970) the Bureau reported that the country's population was 53.4 per cent urban and 46.6 per cent rural, with an average density index of 70.5 inhabitants per square kilometre for the country as a whole, 225.8 for the province of Havana, and 2,375 for the metropolitan centre.

Government perception of spatial distribution

The Revolutionary Government placed great emphasis on eroding regional imbalances. The ideological orientation was towards the rural areas even before the Revolution. In History Will Absolve Me, for example, Fidel Castro emphasized the importance of the countryside and the dependence of the cities on the wealth created there. The interest of the Government in keeping the rural population in the countryside and in giving it a higher standard of living went beyond mere social justice. Such efforts were aimed at the resolution of one of the country's greatest problems, that of regional disequilibrium between the supply and the demand for labour. 18/

Policies with regard to spatial distribution

Throughout the 1960s the Government had been developing a broad regional development strategy which was closely linked to the study and planning of community development, with the evaluation of resources such as water, road transport facilities, population distribution etc., and

---

17/ Barent Landstreet, "Cuba" in Population Policies in the Caribbean, Aron L. Segal, ed. (New York, Lexington Books, 1975), p. 140.

18/ Maruja Acosta and Jorge E. Hardoy, Urban Reform in Revolutionary Cuba (New Haven, Antilles Research Program, Yale University, 1973), p. 17.

with the micro allocation of all investment in agriculture, services and industry in terms of these resources. Regional planning therefore emerged as a necessary complement to the central planning of economic activity and was linked to the Government's over-all development planning. Whereas the growth strategy adopted for the period 1959-1965, with its stress on reducing emphasis on sugar monoculture and on developing import substitution industries, tended to favour Greater Havana and the larger urban centres, the shift in emphasis after 1965 to one of re-emphasizing sugar production in order to maintain the high import capacity needed to promote industrial development brought about a corresponding emphasis on the development of regional and subregional centres.

The demographic growth of Havana continued until 1963 due to the creation of new state enterprises and to educational policies which attracted large numbers of students from the interior. Gradually, the growth of the city was stabilized and there was no appreciable increase in population after late 1965. The Regional Plan for Havana, conceived within a framework of limiting the excessive growth of the city and of its population, proposed such measures as curtailing investments which would stimulate employment in the metropolitan centre and of ending school construction. (The Regional Plan did not presume, however, that the stabilization of Havana would continue indefinitely. It anticipated a metropolitan population of approximately 3 million inhabitants in the year 2010, a figure which was based on the assumption that Havana would return to a natural growth rate which was closer to the predicted national rate.)

Government policies altered the configuration of suburban zones as well as of the metropolitan centre. The Urban Reform Law (1960) entailed radical changes in suburban land use. A regional programme for improving the self-sufficiency of Havana, which commenced in 1967, put 36,000 hectares of previously uncultivated land into productive use. This "green belt" (Cordón Urbano de la Habana) absorbed the labour of more than half a million persons in the cultivation of 50 million coffee trees, 3 million fruit trees, 1 million citrus trees etc.

The National Physical Planning Institute, whose initial functions were centred on the preparation of plans for urban development and on the location of new investment, was established at the same time that the Communist Party was being organized in all parts of the country. The creation of a national organ for regional planning and the emergence of an organic structure for the Party led to the need for new politico-administrative divisions, based on modifications of the agrarian structure and on a more rational system for the economic administration of concurrent activities in the regions. In an attempt to integrate the spatial organization of primary production units, the Physical Planning Institute established a hierarchy of small urban centres, on the basis of such criteria as topographical conditions, existing road network etc. Urban centres of the third order were identified as those with a radius of influence of 20-

40 kilometres. These became the nuclei of the next-to-lowest territorial planning/administrative unit--the district--of which there were 53. Centres of the lowest order--rural central places with a radius of influence of 5-7 kilometres--were designated as the fourth-order planning/administrative unit--the cell.

The country's system of regional planning, while becoming increasingly complex, was characterized by an element of flexibility. During the first phase of agrarian reform, before the identification of the appropriate urban/regional system, 83 new settlements were built. In some instances, the allocation of resources to their infrastructure had proved too costly and centres which were considered incongruous in relation to the hierarchical system were phased out. A further example of the flexibility of regional planning was the integration of the bateyes, or sugar refining centres. Policies introduced in the mid 1960s aimed at transforming the bateye from a town specializing in a single economic activity into a centre in which the industrial and agricultural work force and the services of a determined territory were grouped. Towards this end, each bateye was analysed in relation to the network of urban centres to determine whether its optimal development would be as an agricultural centre or as a centre processing cane derivatives.

During the first phase of restructuring after the Revolution there was a significant rural-to-urban migration of those seeking educational advancement or less arduous work. Eventually, however, the First and Second Laws of Agrarian Reform altered the structural determinants of this migratory flow. In general, the laws eliminated open and disguised unemployment arising from pre-revolutionary patterns of latifundismo/minifundismo. Specifically, the stimulus to out-migration was reduced by crop diversification, by the administrative organization of agriculture in the hands of the State and by the action of peasant co-operatives and of individual cultivators assisted by the State. 19/

19/ Ibid., pp. 39, 18-20, 14-15.

THE PERIOD 1970-1976

The political and economic situation

A very important political objective of the Government during the early 1970s was democratization. Poder Popular (People's Power), initially established in the Province of Matanzas in 1974, is the process of institutionalization of the socialist Government in Cuba. Its purpose is to maximize the people's participation in Government and to increase the efficiency of the state apparatus without sacrificing national planning and co-ordination. Poder Popular delegates will oversee and direct the administration of a wide variety of economic, educational, health and cultural institutions. The assemblies at each level will control and direct those institutions corresponding to their respective level (district, regional or provincial).

The growth strategy adopted for the period 1971-1975 was essentially a continuation of the strategy followed from 1964 to 1970, except that housing construction became an immediate high-priority sector. 1/ The strategy to be adopted during the next several years, during the course of the first five-year plan for the period 1976-1980, is based on the balanced development of productive capacities for export-oriented goods. The country's investment programme will focus on rehabilitation and modernization of the sugar industry and of rail transport associated with that industry, development of nickel, development of exports of citrus fruits, expansion of the fishing fleet and fishing industry, substantial investments in the iron and steel industry, installation of new electric generating capacities, reconstruction and expansion of the national rail network and the main ports, substantial investments in the textile and food industries, growth of the construction materials industry, construction of schools, public health facilities and housing and investments in other social services which will help to raise the level of living of the population.

Development planning

The year 1970 marked the beginning of a new era in the planning process. It was in that year that three important processes were initiated which are of central importance to the planning system as it now exists: the strengthening of mass participation (which found concrete expression in the installation of Poder Popular in Matanzas in 1974), the restructuring and strengthening of the workers' movement and the

---

1/ "Las perspectivas del desarrollo de la economía cubana, 1971-1975," Economía y Desarrollo, No. 13 (septiembre-octubre 1972), p. 192.

mass-based organizations and the institutionalization of socialist legislation, marked by the promulgation of laws such as the Family Code and the Socialist Constitution. Institutionalization was further reflected in the creation of the executive committee of the Council of Ministers and the restructuring of diverse state organisms. The combined effect of those three processes of transformation of political, economic and administrative structures imprinted a new character on the apparatus and the processes of planning.

Also undertaken at this stage was the initiation of the co-ordination of plans with the socialist countries at the end of 1970 and, finally, the incorporation of Cuba into the Council for Mutual Economic Assistance (CMEA) in 1972. This new phase necessitated not only medium but also long-term planning and the necessary perfection of the planning mechanism.

In 1973 work commenced on the development plan for the period 1976-1980. One of the tasks of the First Congress of the Communist Party, which convened in Havana in December 1975, was to examine the economic directives for the quinquennium 1976-1980. That five-year plan, like future ones, will be backed by annual operational plans which will provide the impetus for the achievement of medium-term objectives.

Information on the general demographic situation and trends

One of the major demographic efforts after the Revolution was the taking of the Census of 1970. Information on the planning, enumeration and processing of the Census was given wide coverage in the Cuban press. Preliminary results were published in Granma, the organ of the Central Committee of the Communist Party of Cuba, beginning in December 1970.

At the Second Latin American Meeting on Population the Government reported that the underregistration of demographic data is no longer statistically significant. Nevertheless, continued efforts have been made to achieve universal registration. Cuba is at present moving towards the establishment of a continuing population registration system. Established by law in June 1971, the system is not expected to become fully operational until 1980. Locally, it will be administered by the Committee for the Defence of the Revolution in urban areas and by the National Association of Small Farmers in rural areas.

At the World Population Conference held in Bucharest in August 1974 the Government annonnced the formalization of a joint project with the United Nations Fund for Population Activities (UNFPA) entitled "Extension of maternal and child health services and activities related to population dynamics." The project seeks "to achieve an optimum coverage of demographic variable registries to include the lowest politico-

administrative levels," as well as "rapid data processing with electronic equipment and systematic publication of demographic information." A further objective of the project is "to create at different levels of specialization a personnel well acquainted with the fields of demography and population." 2/ Specific programmes include the extension of the teaching of demography at the undergraduate and graduate levels and the inauguration of courses in each of the six provinces for the training of personnel at the intermediate level. This emphasis on training is not new. In order to raise the level of technical training, the Centre for Demographic Studies (CEDEM) within the Institute of Economics of the University of Havana has offered an intensive course in demography since 1971. Similar courses are now offered in Oriente and in Matanzas.

The Government has focused considerable attention on the area of demographic research. In observance of World Population Year it established a Population Committee (Comité Nacional Coordinador de las Actividades del Año Mundial de la Población) to sponsor research investigating the effects which the profound changes in the basic structures of the country have had and will have upon the national demographic domain. With financial assistance from the United Nations Fund for Population Activities, the Government intends to conduct a number of research projects during 1977-1978: an examination of the relationship between changes in demographic behaviour and the transformation of agrarian structures, changes in the demographic profile of the rural population, relationships between reproductive behaviour and the organization of work etc.

In the area of data collection, as well as in demographic training and research, emphasis has been placed on the analysis of human resources for the implementation of sectoral and regional development. Towards this end, a knowledge of demographic variables and structures is considered to be important for non-specialized personnel. Guidelines for adjusting deficient data have been published in the widely circulated journal Economía y Desarrollo. 3/ As a means of keeping community leaders well informed on demographic matters, the periodical Militante Comunista issues a demographic bulletin which provides information on current demographic trends.

2/ "Project agreement between the Government of Cuba and the United Nations Fund for Population Activities" (CUB-73-P01), pp. 2, 3.

3/ Luisa Alvarez, "Estimación del nivel de mortalidad a través de preguntas censales," Economía y Desarrollo, No. 5 (enero-marzo de 1971), pp. 107-126; Rodolfo Mezquita y Juan Chackiel, "Método de construcción de poblaciónes modelos estables cuasi-estables", ibid., pp. 127-146.

General policy with regard to the demographic situation and trends

The statement issued by the Government at the World Population Conference emphasized that a coherent and rigorous population policy could only be defined as a function of the wider policy of development which it must reinforce and complete. In the general debate, the Government frequently reiterated its position that the demographic situation which characterized countries in the third world was not due to an inappropriate population policy, but rather to "the oppression, exploitation and economic backwardness produced by imperialism."

Cuba attended the preparatory meeting for the World Population Conference in April 1974 and issued a country statement at the World Population Conference in August 1974 and at the Second Latin American Meeting on Population in March 1975. The Government did not reply to the United Nations Third Population Inquiry in 1976.

Size and growth of population

Information available to the Government

Preliminary results of the Census conducted in September 1970 indicated a total population of 8.5 million inhabitants. The Anuario Estadístico reported a total population of 8.7 million in 1972 and an average annual growth rate of 2.0 per cent. 4/ The statement issued by the Government at the World Population Conference reported that according to still provisional estimates, the population would increase until 1985 at an average rate of approximately 1.9 per cent per annum, reaching approximately 11.2 million inhabitants in that year.

Government perception of size and growth in relation to development objectives

At the World Population Conference in 1974 the Government reported that the country's population would probably increase at an average annual rate of approximately 1.9 per cent until 1985, and that this moderate demographic growth would be conditioned by two variables which have opposite effects: a young population and a level of fertility which would be decreasing, but without major fluctuations.

4/ Anuario Estadístico de Cuba (La Habana, JUCEPLAN, Dirección Central de Estadística, 1972), p. 6.

The Government consistently maintained that an integrated process of socio-economic development--characterized by sustained economic growth and accompanied by income redistribution and full employment--obviates the need for a policy aimed at reducing population growth. The statement issued by the Government at the World Population Conference noted that since 1959 and the triumph of the Revolution, the principal preoccupation and the most sustained efforts of the Revolutionary Directorate of Cuba had not been oriented towards intervening in the demographic process, but towards achieving the basic structural changes which tend to promote integral socio-economic development, considering that the fundamental problems of underdevelopment originate neither in the high rate of increase of the population nor in a high level of urban concentration. The Cuban experience was conclusive as evidence that it was not necessary to subordinate economic development to demographic behaviour. Development was possible even with high population growth rates, however unfavourable they might appear, because it was seen as more than the quantitative increase of production; it implied redistribution of income and productive resources and greater participation of all sectors of the population in social and political institutions. The fact that Cuba had not established a policy of birth control was the result of the fact that its policy of development had permitted an accelerating reduction in the level of births which, in spite of the also accelerating reduction in the level of mortality, made possible a net population growth rate compatible with developmental requirements.

Policy with regard to size and growth

While the Government has not formulated an explicit policy designed to modify population growth rates, it recognizes that its over-all development policies affect demographic structures. It noted at the World Population Conference that it did not propose to reduce population growth, but did not fail to recognize that, obviously, the profound structural changes which had been brought about and which were generators of a harmonious and self-sustained socio-economic development would decisively influence the traditional demographic pattern, which would respond dialectically to the new conditions created.

Morbidity and mortality

Information available to the Government

In its report on the organization of health services, published in 1974, the Ministry of Public Health stated that although undergoing an improvement after 1962, mortality statistics began to be reliable only

after 1968. In 1973 the general mortality rate was 5.7 per thousand, the infant mortality rate was 27.4 per thousand live births, and the maternal mortality rate was 0.5 per thousand live births. 5/

In the Revista Cubana de Administración de Salud it was reported in 1975 that improvements in the registration of deaths obscured the real decline in mortality which occurred during the period 1959-1970. If a more appropriate indicator had been utilized, such as expectancy of life at birth, the estimate for 1953 would have been 58.8 years, representing a gain of 25.6 years of life over a period of 53 years, which indicates a gain of one year of life for each two calendar years. During the 17 years between 1953 and 1970 the figure rose by 11.4 years to 70.2 years, indicating a gain of nearly one year of life for each calendar year, double that of the preceding stage. 6/ The Revista also reported that during the past decade the incidence of infectious disease had declined by 65.2 per cent (from 13.5 to 4.7 per cent of total deaths) and that maternal mortality had been reduced by 54.0 per cent.

At the World Population Conference in August 1974 the Government provided the following summary of recent achievements in bringing about a reduction of morbidity and mortality. The health policy implemented by the Revolutionary Government had been the determinant of a quantitative and qualitative transformation of the morbidity and mortality of the Cuban population. The major health problem constituted by infectious diseases in the early 1960s had disappeared and chronic degenerative diseases and cancer stood out as the most important causes of morbidity and mortality. In the past 10 years infectious diseases had declined in magnitude as a cause of death from 13.5 per cent of the total to 4.7 per cent, a reduction of almost two thirds. The mortality of children between 1 and 4 years of age was 1.2 per thousand and that of children 5 to 14 was 0.4 per thousand. The infant mortality rate, a particularly sensitive indicator for the evaluation of the health and cultural status of a population, was 27.4 per thousand live births in 1975. Births occurring with qualified medical assistance attained 98 per cent of the total, and the population received an average of 4.5 consultations per inhabitant during the past year. Health services had already attained a solid and stable national coverage and were free to the entire population.

5/ Cuba: Organización de los servicios de salud (La Habana, Ministerio de Salud Pública, 1974), p. 69.

6/ F. Rojas Ochoa, "Tendencias demográficas recientes y perspectivas futuras de la población cubana," Revista Cubana de Administración de Salud, vol. 1, Nos. 1-2 (enero-junio de 1975), pp. 12-13.

The report of the Ministry of Public Health, referred to above, noted that the country had 248 hospitals, 326 polyclinics, and 397 other health institutions. It reported a total of 56 rural hospitals--generally situated in remote mountainous zones--a majority of which were constructed around 1960. Reporting a ratio of 4.6 hospital beds per thousand inhabitants, the Ministry noted that whereas the metropolitan centre had accounted for 61.7 per cent of the total beds in 1958, it accounted for only 44.3 per cent in 1974.

More than 8,000 physicians were trained between the years 1959 and 1973, in spite of the fact that more than 3,000 physicians had emigrated during the decade of the 1960s. In the country's 45 health regions the ratio of physicians to inhabitants varied between the extremes of 1:800 in Havana and 1:5,400 in a remote region of Camagüey; in most regions it fell between 1:1,500 and 1:2,000.

Government perception of levels of morbidity and mortality

The Government considers progress to be substantial in the reduction of levels of morbidity and mortality, but it identifies areas for improvement. At the Second Latin American Meeting on Population the Government noted that it had been able to eradicate some infectious diseases and to reduce others to very low levels, to such a degree that gastro-intestinal diseases, the principal affliction in the developing countries, had dropped from the top 10 causes of death in Cuba. Malnutrition no longer constituted a health problem, and medical services were constantly being expanded, at the same time that services were being equalized in the capital and in the interior. Life expectancy at birth was approximately 70 years, and there was no doubt that the goal of 73.5 years for the region as a whole by the year 2000, was for Cuba within the realm of definite possibility.

The Revista Cubana de Administración de Salud also reported in 1975 that no recommendation of the World Plan of Action appeared to be more attractive than that of reducing infant and child mortality, in spite of Cuba's low rates. Long-term objectives of the joint project undertaken by the Government and the United Nations Fund for Population Activities in 1975 are to reduce infant mortality to a level of 20 per thousand live births, perinatal mortality to 24 per thousand live births and maternal mortality to a level of 0.2 per thousand live births. Further objectives are to increase pre-natal consultations from 7.2 per partum in 1971 to 10, and to increase pediatric consultations from 3.4 annual visits to 5.

Policy with regard to morbidity and mortality

In its 1974 report the Ministry of Public Health noted that the rural hospital is the basic unit of services in rural communities. Its coverage is defined to include between 5,000 and 20,000 inhabitants, while the number of beds varies from 10 to 40. The rural medical post is the smallest unit in the health sector, providing basic health services to between 3,000 and 5,000 inhabitants, a group which is known as the sector. Community participation is essential to its functioning. The Ministry specifically cited the vaccination programmes of the Committees for the Defence of the Revolution, the sanitary brigades of the Federation of Cuban Women and the health activities of the labour unions, and reported that the highest expression of this participation was the implementation of Poder Popular. With the implementation of Poder Popular, the assemblies at each level will control and direct those institutions which correspond to their level. For example, the district assemblies will control neighbourhood polyclinics but the provincial assembly will be in charge of hospitals serving the entire province.

The decree of 1 August 1960 which defined the functions of the Ministry of Public Health initiated a continuing process of health planning. The Ministry reported in 1974 that the existence of a policy for the sector and the development of a planning process within it had facilitated the implementation of a system which had proved its efficiency in raising the health level of the population. Services were delivered on distinct and rationally ordered levels on the basis of such factors as geographical and demographic characteristics of a community, the health status of its population, development prospects for the area etc. The system as a whole has a pyramidal structure, with three hierarchical levels (central, provincial, regional) and five levels of services (national, provincial, regional, area, sectoral). Maximum authority is vested in the central level, which defines the policies, fixes the norms and evaluates and directs organizational programmes, delegating the execution and supervision of programmes to the successive levels. The regional level directs regional services (hospitals, nursing homes, blood banks, laboratories etc.) as well as area services (polyclinics and rural hospitals). Rural medical posts, as well as school and industrial health facilities, constitute the sectors, whichare an extension of the area services. The Ministry of Public Health emphasized that all health-related activities are integrated and there are no programmes of vertical command. The process of planning within the health sector had permitted the drawing up of plans and goals which had been attained within the decade, due primarily to the existence of such a policy and of a strategy within that policy.

The United Nations Development Programme reported in 1976 that the country programme for Cuba in 1977-1980 will emphasize strengthening of the National Institute of Public Health.

Fertility

Information available to the Government

In 1974 the Government issued the following revised estimates of the crude birth-rate during the post-revolutionary period:

Year	Birth-rate 7/	Birth-rate 8/
1958	27.3	27.3
1959	28.7	28.2
1960	31.5	30.0
1961	33.8	31.5
1962	36.9	33.3
1963	35.5	35.0
1964	35.5	36.3
1965	34.6	35.4
1966	32.7	33.6
1967	29.2	31.7
1968	28.9	30.1
1969	...	28.6
1970	...	28.6
1971	...	29.8
1972	...	28.3
1973	...	25.3

The above figures document the phenomenon of a substantial rise and subsequent fall in fertility, in which it took more than a decade to reach pre-revolutionary levels. In 1971 a Cuban demographer, Pérez de la Riva, explained this so-called "baby boom" as a temporary response to new conditions created by the Revolution--a reduction in the level of open unemployment, increased access to housing etc.--as a result of which nuptiality increased. In accounting for the subsequent decline, Pérez cited the expansion of educational facilities and the increasing incorporation of women into the labour force. 9/

The Centre for Demographic Studies (CEDEM) reported in 1976 that although it is difficult to quantify the effects which the transformation of

---

7/ Resumen de Estadísticas de Población, No. 4 (La Habana, JUCEPLAN, Dirección Central de Estadística, 1965), p. 15.

8/ Cuba: Organización de los servicios de salud, p. 69.

9/ Juan Pérez de la Riva, "Para saber con cuanto gente contamos," Cuba (enero de 1971), p. 21.

various societal processes have had on levels of fertility, the progressive increase observed in the crude birth rate after 1958 was related without a doubt to three factors: social stability; economic security; and increasing medical attention. Noting the massive literacy campaign which had commenced in 1961, CEDEM also reported that the factor of education may have had a two-way effect on fertility levels. On the one hand it had raised the cultural level and this generally caused the fertility level to decline, but on the other hand, the State had created many facilities for the number of scholarship recipients, which may have served as an element which encouraged fertility in the first few years of the decade. The combined effect of these various factors had produced the "baby boom", which had reached its highest point in 1964 with a crude birth-rate of 36.3 per thousand population, a level similar to that which had existed in the 1920s. 10/

In discussing the factors which had caused fertility levels to decline, CEDEM noted the significance of free child-care centres. Although it was recognized that, as in the case of the literacy campaign, the provision of free child-care may have acted to stimulate fertility, its major effect was to facilitate the incorporation of women into the labour force, and historical experience demonstrates that this factor reduces fertility levels. After 1964 the raising of cultural levels, the modification of rural residence patterns, which in effect became "more urban" and, chiefly, the growing incorporation of women into the productive processes brought about a decline in the level of the crude birth-rate, beginning around 1966.

Government perception of trends of fertility

The Government considers aggregate levels of national fertility to be acceptable. At the World Population Conference in 1974 the Government emphasized that the fact that Cuba had not established a policy of birth control was the result of the fact that its policy of development had permitted up to the present an accelerating reduction in the level of births which, in spite of the also accelerating reduction in the level of mortality, made possible a net population growth rate which was compatible with developmental requirements.

Policy with regard to fertility

The Government does not have a policy designed to modify fertility, partly because it considers current trends to be acceptable. The Government's position is rooted in ideological opposition to "neo-Malthusian" policies, which hold that over-population (defined as very high density of population

---

10/ La Población de Cuba (La Habana, Centro de Estudios Demográficos, 1976), pp. 33-34.

and as a very accelerated rate of demographic increase) is the cause of poverty, unemployment, high levels of mortality, malnutrition and hunger in the countries of the so-called third world, and an essential condition for the resolution of these problems is a drastic reduction in the rates of population growth in the underdeveloped countries. Cuba refuses to associate underdevelopment with the demographic explosion, giving the latter a causal function. At the Second Latin American Meeting on Population the Government referred to "the compulsive application of family planning by certain international agencies" as a product of "demographic terrorism." The Cuban position takes issue with anti-natalist theory in general, on the grounds, for example, that it erroneously supposes a scarcity of capital in developing countries. 11/

There are no private family planning services in Cuba. The Government continues to adhere to the position that it will take no measures to bring about a modification of individual or aggregate fertility levels. Nevertheless, as a health and welfare measure government-sponsored family planning services have been incorporated into the maternal-child health programme of the Ministry of Health. A variety of contraceptive services, provided free of charge, have been available in Cuba. In 1971 it was reported that eight polyclinics and five hospitals in Havana averaged a total of 4,700 IUD insertions per month. 12/ While the law restricts abortion, the Ministry of Health issued data in 1973 indicating a rise in induced abortions from 28,484 in 1968 to 112,207 in 1973, when abortions averaged 50 per 100 estimated births.

The agreement concluded between the Government and the United Nations Fund for Population Activities following the World Population Conference stipulated that "the activities proposed for the regulation of fertility shall be extended so that the following objectives can be met: to fulfil 100 per cent of the spontaneous demand for contraceptive services.../and/ to reduce interruption of pregnancies, especially among women with a history of consecutive abortions." 13/

Cuba's network of family planning services has been largely justified in terms of protecting women's health. At the Second Latin American Meeting on Population the Government emphasized its belief that in relation to population the principle protagonist was the mother and that contraception, pregnancy and parturition, and in general all biological and psycho-social

---

11/ Angel Fucaraccio, "El control de la natalidad y el argumento del ahorro y la inversión," Economía y Desarrollo, No. 5 (enero-marzo de 1971), p. 92.

12/ José Chelala, "Contraception and abortion in Cuba," IPPF Medical Bulletin, vol. 5, No. 5 (October 1971), p. 3.

13/ "Project agreement...," pp. 15-16.

phenomena that modify demographic variables were so dependent on the health factor that they could not be separated. The Government stressed, however, that while the health organization, among its activities in protecting the health of women, created the mechanisms which under certain conditions permitted the prevention of an undesired birth as well as overcame undesired sterility, this was done without including among its activities any which would directly stimulate an increase or decrease in fertility. 14/

Family planning has been further conceived as a means of freeing women for productive activities. At the Second Latin American Meeting on Population the Government noted that sexual education, knowledge of contraceptive methods and their effective use had as their greatest significance the liberation of the woman.

The Government continues to maintain, however, that fertility in developing countries will reach acceptable levels as a result of socio-economic development. At the World Population Conference the Government emphasized that so long as the material conditions in which the majority of the peoples of the third world live did not considerably improve, the reproductive behaviour of those populations would not change and programmes of birth control would consequently be inefficient. Cuba considered that there existed a dialectic and not a mechanical relationship between development and fertility. Thus the population problem in underdeveloped countries would not be resolved until there had taken place basic structural changes, until the peoples took into their own hands their natural resources, until riches were distributed with greater social justice. The Government also noted that the profound structural changes which had occurred under the Revolutionary Government had notably improved material conditions and, above all, the quality of life of the population. No similar advance of the general situation of the country could ever have been achieved by any policy of family planning.

Immigration

Immigration is no longer statistically significant, consisting as it does largely of the temporary migration of professionals and technicians from other socialist countries.

Emigration

Information available to the Government

Although the airlift of Cubans to the United States continued until 1973, the volume of emigration was reduced considerably after 1971.

14/ Cuba: Organización de los servicios y nivel de salud (La Habana, Ministerio de Salud Pública, 1972), p. 88.

The net balance of international migration was reported to be -52,552 in 1970, -49,631 in 1971, and -16,856 in 1972. 15/

In analysing the consequences for demographic behaviour of the emigration of more than half a million Cubans during the period 1959-1973, a Cuban demographer, Pérez de la Riva, reported in 1971 that emigration had served to counteract the initial rise in fertility which occurred in the aftermath of the Revolution. It was reported that the loss of population through emigration from 1958 to 1968 was almost exactly offset by the rise in births which occurred during the same period. 16/

Government perception of emigration

Since Cuba's development during the early years of the Revolution was retarded by the emigration of persons employed in critical occupations, the Government has taken a firm stand in opposition to selective emigration. The statement issued by the Government at the Second Latin American Meeting on Population deplored the exodus of intellectuals from many countries and noted that the draft of the World Population Plan of Action was not sufficiently forceful on this point.

Policy with regard to emigration

In May 1969 the Government decided to stop accepting exit applications and, beginning in 1971, began requesting occasional interruptions of flights to the United States. The last flight was made on 6 April 1973. 17/ Present government policy is to allow departures only under exceptional circumstances.

Spatial distribution

Information available to the Government

The great importance which the Government has attached to the study of human and physical resources in the various regions has stemmed from the need for optimum allocation of the new investments provided for in the national sectoral plans. The Department of Regional Planning of the Institute of Economics of the University of Havana reported, for example, in 1975 that

---

15/ Anuario Estadístico de Cuba, pp. 18-24.

16/ Pérez de la Riva, op. cit., p. 21.

17/ Barent Landstreet, "Cuba" in Population Policies in the Caribbean, Aron L. Segal, ed. (New York, Lexington Books, 1975), p. 141.

the need to obtain maximum efficiency in planning made it necessary to achieve the greatest possible concurrence between political/administrative divisions and economic regions. The Department outlined a procedure by which agglomerations might be identified as potential regional urban centres and by which the complex interrelationships between these centres and their respective regions might be fully understood. The study identified certain key variables--total population (to determine the relative importance of the population centre), urban-rural distribution (to determine the degree of urbanization in the region), occupational structure (to determine the coefficient of specialization or diversification of the particular region with respect to the national mix) etc.--and, by means of econometric analysis, identified five regional centres--Greater Havana, Santa Clara, Camagüey, Holguín, and Santiago de Cuba, and six centres of the second order--Pinar del Río, Matanzas, Cardenas, Cienfuegos, Sancti Spiritus, and Ciego de Avila. In order to determine the extent of their respective spheres of influence, the Department analysed such factors as the range of the transportation network and of the telecommunications system. 19/

Government perception of spatial distribution

At the World Population Conference in 1974 the Government reported major developments with respect to the modification of pre-revolutionary patterns of spatial distribution. In so far as internal movements of population were concerned, during the whole neo-colonial period Cuba had not escaped the tendencies which manifested themselves in the third world: a rural exodus and excessive attraction of the capital. Between 1900 and 1958 the population of Havana had quintupled, coming to constitute 25 per cent of the total population. This highly undesirable tendency had preoccupied the Revolutionary Government, and as a result of the measures adopted, the capital had a rate of growth which was in 1974 almost identical to that of the rest of the country. Interprovincial migration movements had diminished considerably as a result of stability of employment. In each province, on the other hand, there had been between 1958 and 1970 an increase in the proportion of the total population resident in the respective capitals, while the relative weight of those in the respective provincial total urban populations had decreased, the result of decentralization of productive activities and the integrated development of the entire country.

The Revista Cubana de Administración de Salud reported in 1975 that the planned regional economic development recommended by the World Population Plan of Action was at that time a reality in Cuba. 19/

Policies with regard to spatial distribution

The First Congress of the Communist Party, which convened in December 1975, examined and approved directives for a new politico-administrative

19/ F. Rojas Ochoa, op. cit., p. 14.

division of the country. The Government reported that the changes produced in the politico-administrative divisions, as of 1959, had been the response of the Revolution to the necessity to organize and territorially restructure the country in accordance with new conditions created by profound economic and social transformations. The politico-administrative divisions which had previously existed did not correspond either to present necessities or to prospects for future development. The Government noted that the differences in surface area, size of population and economic complexity between the various provinces, regions and municipalities had limited maximum effectiveness in the planning process.

It was reported that the new divisions would conform to criteria of economic regionalization and would take into consideration present and future demographic patterns. The new divisions would consist of two administrative levels--that of the province and that of the municipality, with a greater number of provinces of smaller size and a smaller number of municipalities of larger size. The division of the country into 14 provinces would provide a convenient basis for the direction of economic activities, and especially of agro-industrial activities. The municipal reorganization would create 169 territorial units, with a greater degree of economic activity and more social services. 20/

The Centre for Demographic Studies reported in 1976 that between the years 1959 and 1971, 246 new towns had been created--21/ with a total population of some 120,000 inhabitants and a projected population of 420,000.

20/ "Resolución sobre la división politico-administrativa," Economía y Desarrollo, No. 36 (julio-agosto de 1976), p. 141.

21/ La Población de Cuba, p. 168.

CONCLUSION

Cuba is the third country in Latin America to have entered the fertility-declining stage of the demographic transition, beginning the transition to relatively low fertility during the 1930s and 1940s. Still, it was not exempt from some of the most characteristic demographic problems of the developing world: endemic morbidity and high mortality among the poorest sectors of the population, high metropolitan primacy and continuing out-migration from depressed rural areas.

Following the Revolution of 1 January 1959 the economic, political and social structures of the country were rapidly transformed. But accompanying those major structural changes were many transformations of a lesser scale which have been of great significance. For example, the data-gathering system is widely acknowledged to have been seriously deficient before 1959. From the publication of the first demographic yearbook in 1965, data have been continuously revised and improved, particularly after the change-over from the historically deficient Civil Registry to the National Registry of Consumers. At present, Cuba has virtually complete registration and is moving towards a continuing registration system such as exists in a number of Western European countries. In addition, the Government has placed considerable emphasis on demographic training and research and, through the Demographic Studies Centre of the University of Havana, has succeeded in training needed personnel at various levels--graduate and undergraduate, professional and non-professional--in Havana and in the provinces. The development of the national statistical system, an essential input to planning, has been accompanied by the simultaneous development of a highly efficient planning system, as required in a centrally planned economy. From a series of annual plans, the Government issued its first five-year plan in 1975 and has begun to integrate its plans with those of the Soviet bloc, in line with its close trade relations and membership in the Council for Mutual Economic Assistance.

With regard to morbidity and mortality, the country has a highly integrated health system, widely acknowledged to be one of the most noteworthy achievements of the Revolution. At present Cuba has the highest level of life expectancy in the Latin American region and low levels of infant, child and maternal mortality, although the Government has expressed its desire to lower mortality still further.

Although the Government has indicated its opposition to birth control, it formalized an agreement with the United Nations Fund for Population Activities following the World Population Conference which will provide access to contraceptive services for all Cuban women, as a means of reducing abortion, improving maternal-child health and of freeing women for productive activities.

A major transformation has taken place with respect to the spatial distribution of the Cuban population, a factor which has been indirectly

responsible for the efficient provision of social services, due to the locational component in government health and education policies. Whereas in the immediate post-revolutionary period, some government policies had the temporary effect of attracting students and workers to the metropolitan centre, the Government initiated a series of measures which eventually stabilized its growth. Subsequent spatial policies have focused on the development of regional urban centres and the establishment of some 246 new towns. Regional development has, in the words of the Government, been characterized by revolutionary praxis, that is, by constant experimentation and modification of pre-existing plans in an attempt to obtain maximum efficiency in centralized planning and the optimum allocation of services and infrastructure with respect to population and, conversely, of population with respect to natural resources. Spatial policies have assumed a pre-eminent place in government thinking owing to their wider economic, political and social implications. The new political-administrative divisions, for example, are conceived as a means of achieving maximum efficiency in economic planning and an equitable distribution of social services. But at the same time, the uniform distribution of population throughout the country is seen as a necessary accompaniment to the decentralization and democratization (Poder Popular) which has been the Government's major non-economic thrust in recent years.

With respect to population growth, at various international meetings on population during the course of the past few years, Cuba has been in the forefront of those countries which have opposed anti-natalist policies and which have argued that socio-economic development--with an emphasis on equity--obviates the need for Governments to intervene to modify population growth. However, a caveat is in order. The population of Cuba has continued to grow at a moderate rate, 1.9 per cent per annum. (As Cuban demographers have demonstrated, the temporary rise in fertility which occurred in the immediate post-revolutionary period was offset by the large wave of emigration which occurred during those same years.) Therefore, although the country's ambitious programmes of spatial distribution, with their concommitant effect on the provision of social services and so on, might serve as a model for other developing countries, the country's experience with respect to population growth cannot readily be extrapolated, since Cuba had entered into a demographic transition well before most other Latin American and Caribbean societies and had achieved relatively low birth and death rates for that region before the Revolution.

Cuba: Selected demographic indicators, 1950-2000

Medium variant	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000
Population, total (in 1000)	5752	6347	7019	7802	8565	9481	10533	11660	12855	14069	15267
-- , males (--)	2995	3280	3605	3987	4378	4835	8353	5912	6507	7113	7712
-- , females (--)	2758	3067	3415	3815	4187	4646	5179	5747	6348	6956	7555
Pop. ages 0-4 to total (0/0)	13.7	13.1	13.2	15.3	14.3	13.3	12.7	12.5	12.2	11.5	10.7
-- 5-14 --	23.4	23.3	22.3	21.5	23.6	24.7	23.1	22.0	21.5	21.2	20.6
-- 15-64 --	58.9	59.8	60.6	58.7	56.6	55.8	57.5	58.7	59.6	60.5	61.8
-- 65+ --	4.0	3.9	3.9	4.5	5.5	6.2	6.6	6.7	6.7	6.8	6.9
-- under 20 --	46.6	46.1	45.5	46.3	46.7	46.9	46.7	44.7	43.3	42.1	40.7
Women ages 15-49 to females (0/0) ...	50.8	50.3	50.0	47.7	46.2	45.8	47.8	49.0	49.5	49.9	50.6
Dependency ratios (per 1000)	697.8	671.8	649.0	702.7	766.1	791.0	739.0	702.6	677.8	652.4	616.9
Child-woman ratios (per 1000)	563.2	537.9	542.6	656.4	631.5	592.7	542.4	518.3	497.2	465.4	426.5
Sex ratios (per 100 females)	108.6	106.9	105.6	104.5	104.5	104.1	103.4	102.9	102.5	102.3	102.1
Median ages (years)	22.0	22.3	22.6	22.2	22.0	22.0	22.1	22.7	23.7	24.5	25.5
Proportion of urban (0/0)	49.8	50.6	51.2	54.1	59.0	61.6	64.2	66.9	69.6	72.2	74.8
Population density (per sq. km.)	50	55	61	68	75	83	92	102	112	123	133
	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	
Rates of growth (0/0)	1.97	2.01	2.11	1.87	2.03	2.10	2.03	1.95	1.81	1.63	
Natural increase rates (0/00)	19.7	20.8	26.5	24.7	22.5	21.0	20.3	19.5	18.0	16.3	
Crude birth rates (--)	30.3	30.1	34.8	31.4	29.1	27.8	27.2	26.3	24.6	22.8	
Crude death rates (--)	10.5	9.2	8.3	6.6	6.6	6.7	6.9	6.8	6.6	6.4	
Gross reproduction rates	--	--	--	--	1.97	1.85	1.74	1.63	1.51	1.40	
Net reproduction rates	--	--	--	--	1.83	1.74	1.64	1.54	1.44	1.34	
Total fertility rates (0/00)	--	--	--	--	4034	3801	3569	3337	3104	2872	
General fertility rates (--)	124.4	123.7	146.2	136.6	129.4	120.8	114.0	108.0	100.3	91.6	
Life expectancy, males (years)	56.7	59.6	63.0	67.5	68.1	68.7	69.4	70.0	70.6	71.2	
-- , females (--)	61.0	64.1	67.3	70.9	71.5	72.2	72.8	73.5	74.1	74.8	
-- , total (--)	58.8	61.8	65.1	69.2	69.8	70.4	71.1	71.7	72.3	73.0	

/...

High variant	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000
Population, total (in 1000)	5752	6347	7019	7802	8565	9502	10602	11812	13137	14540	16001
-- , males (--)	2995	3280	3605	3987	4378	4846	5390	5990	6650	7352	8085
-- , females (--)	2758	3067	3415	3815	4187	4657	5213	5822	6487	7187	7915
Pop. ages 0-4 to total (0/0)	13.7	13.1	13.2	15.3	14.3	13.5	13.1	13.1	12.9	12.4	11.8
-- 5-14 --	23.4	23.3	22.3	21.5	23.6	24.6	23.2	22.3	22.1	22.0	21.6
-- 15-64 --	58.9	59.8	60.6	58.7	56.6	55.7	57.1	58.0	58.5	59.0	60.0
-- 65+ --	4.0	3.9	3.9	4.5	5.5	6.2	6.6	6.6	6.6	6.5	6.6
-- under 20 --	46.6	46.1	45.5	46.3	46.7	47.0	47.0	45.4	44.5	43.8	43.0
Women ages 15-49 to females (0/0) ...	50.8	50.3	50.0	47.7	46.2	45.7	47.4	48.4	48.6	48.8	49.2
Dependency ratios (per 1000)	697.8	671.8	649.0	702.7	766.1	795.0	750.5	724.9	710.0	694.1	668.1
Child-woman ratios (per 1000)	563.2	537.9	542.6	656.4	631.5	602.7	561.9	548.1	537.0	515.3	486.8
Sex ratios (per 100 females)	108.6	106.9	105.6	104.5	104.5	104.1	103.4	102.9	102.5	102.3	102.1
Median ages (years)	22.0	22.3	22.6	22.2	22.0	21.9	21.9	22.4	23.1	23.6	24.2
Proportion of urban (0/0)	49.8	50.6	51.2	54.1	59.0	62.0	65.1	68.3	71.6	75.0	78.2
Population density (per sq. km.)	50	55	61	68	75	83	93	103	115	127	140
	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	
Rates of growth (0/0)	1.97	2.01	2.11	1.87	2.08	2.19	2.16	2.13	2.03	1.92	
Natural increase rates (0/00)	19.7	20.8	26.5	24.7	23.0	21.9	21.6	21.2	20.3	19.1	
Crude birth rates (--)	30.3	30.1	34.8	31.4	29.6	28.6	28.5	28.0	26.8	25.4	
Crude death rates (--)	10.5	9.2	8.3	6.6	6.6	6.7	6.9	6.7	6.5	6.3	
Gross reproduction rates	--	--	--	--	2.00	1.92	1.84	1.76	1.68	1.60	
Net reproduction rates	--	--	--	--	1.86	1.80	1.74	1.67	1.60	1.53	
Total fertility rates (0/00)	--	--	--	--	4102	3938	3774	3610	3446	3282	
General fertility rates (--)	124.4	123.7	146.2	136.6	131.6	125.1	120.5	116.8	111.3	105.0	
Life expectancy, males (years)	56.7	59.6	63.0	67.5	68.1	68.7	69.4	70.0	70.6	71.2	
-- , females (--)	61.0	64.1	67.3	70.9	71.5	72.2	72.8	73.5	74.1	74.8	
-- , total (--)	58.8	61.8	65.1	69.2	69.8	70.4	71.1	71.7	72.3	73.0	

/...

Low variant	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000
Population, total (in 1000)	5752	6347	7019	7802	8565	9460	10464	11507	12573	13601	14543
-- , males (--)	2995	3280	3605	3987	4378	4824	5319	5834	6363	6875	7344
-- , females (--)	2758	3067	3415	3815	4187	4636	5145	5673	6210	6726	7199
Pop. ages 0- 4 to total (0/0)	13.7	13.1	13.2	15.3	14.3	13.1	12.4	12.0	11.4	10.5	9.4
-- 5-14 --	23.4	23.3	22.3	21.5	23.6	24.7	23.1	21.7	21.0	20.4	19.5
-- 15-64 --	58.9	59.8	60.6	58.7	56.6	56.0	57.9	59.5	60.8	62.1	63.9
-- 65+ --	4.0	3.9	3.9	4.5	5.5	6.2	6.7	6.8	6.9	7.0	7.2
-- under 20 --	46.6	46.1	45.5	46.3	46.7	46.8	46.3	44.0	42.0	40.2	38.2
Women ages 15-49 to females (0/0)	50.8	50.3	50.0	47.7	46.2	45.9	48.1	49.7	50.5	51.1	52.0
Dependency ratios (per 1000)	697.8	671.8	649.0	702.7	766.1	787.0	727.6	680.3	645.6	610.3	565.1
Child-woman ratios (per 1000)	563.2	537.9	542.6	656.4	631.5	582.7	522.9	488.5	457.2	415.2	366.1
Sex ratios (per 100 females)	108.6	106.9	105.6	104.5	104.5	104.1	103.4	102.9	102.5	102.2	102.0
Median ages (years)	22.0	22.3	22.6	22.2	22.0	22.0	22.3	23.1	24.3	25.5	26.9
Proportion of urban (0/0)	49.8	50.6	51.2	54.1	59.0	61.2	63.4	65.4	67.4	69.3	71.1
Population density (per sq. km.)	50	55	61	68	75	83	91	100	110	119	127
	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	
Rates of growth (0/0)	1.97	2.01	2.11	1.87	1.99	2.02	1.90	1.77	1.57	1.34	
Natural increase rates (0/0)	19.7	20.8	26.5	24.7	22.1	20.2	19.0	17.7	15.7	13.4	
Crude birth rates (--)	30.3	30.1	34.8	31.4	28.7	26.9	25.9	24.5	22.4	20.0	
Crude death rates (--)	10.5	9.2	8.3	6.6	6.6	6.7	6.9	6.8	6.7	6.6	
Gross reproduction rates	--	--	--	--	1.93	1.79	1.64	1.49	1.35	1.20	
Net reproduction rates	--	--	--	--	1.80	1.68	1.55	1.42	1.28	1.15	
Total fertility rates (0/00)	--	--	--	--	3965	3664	3364	3063	2762	2461	
General fertility rates (--)	124.4	123.7	146.2	136.6	127.2	116.4	107.4	99.1	89.2	78.2	
Life expectancy, males (years)	56.7	59.6	63.0	67.5	68.1	68.7	69.4	70.0	70.6	71.2	
-- , females (--)	61.0	64.1	67.3	70.9	71.5	72.2	72.8	73.5	74.1	74.8	
-- , total (--)	58.8	61.8	65.1	69.2	69.8	70.4	71.1	71.7	72.3	73.0	

Source: World Population Prospects as Assessed in 1973 (United Nations publication, Sales No. E.76.XIII.4).

MAP NO. 2949 UNITED NATIONS
OCTOBER 1977

Litho in United Nations, New York
36579—November 1977—4,700